

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A Java execution device comprising:

an extended class library which includes a class file of a machine code obtained by precompiling a class file included in a standard class library; and

a Java Virtual Machine (JVM) which executes the class file of the machine code class file or an application file included in the extended class library.

2. (original): The Java execution device of claim 1, wherein a machine instruction of the machine code includes an operand in which symbolic reference information is inserted.

3. (currently amended): The Java execution device of claim 2, wherein the Java Virtual Machine (JVM) includes a class linker which converts the symbolic reference information inserted in the operand of the machine instruction into [[an]] the address.

- 4.(currently amended) ~~A configuration of a Java class file, wherein the Java class file comprises~~ for using with a Java Virtual Machine (JVM) in which a Java application is executed on a Java platform in a device, comprising:

a constant,

a field, and

a method,

wherein a symbolic reference information indicates a specific class, field or method of an object, and method information of the method comprises an attribute of a code formed of the machine instruction having [[the]] an operand in which the symbolic reference information is inserted in place of an address.

5. (original): The configuration of the Java class file of claim 4, wherein the method information further comprises at least one of exception handling information and information used for garbage collection.

6. (original): The configuration of the Java class file of claim 4, wherein the symbolic reference information comprises at least one of information on a constant pool symbol, information on a Java Virtual Machine (JVM)-internal symbol and information on a location of a data block.

7. (currently amended): A method of executing a Java application on a Java platform in a device, the Java application causing the device to perform a desired function, the method comprises:

(a) precompiling a class file included in a standard class library into an extended class library file including a machine instruction;

(b) the extended class library file executing the machine instruction; and
(c) executing a Java application file by using at least one of a Just-In-Time (JIT)
compiling method and an interpreting method.

8. (original): The method of claim 7, wherein step (a) further comprises inserting
symbolic reference information into an operand of the machine instruction.

9. (original): The method of claim 7, wherein step (b) further comprises converting the
symbolic reference information inserted in the operand of the machine instruction into an
address.

10. (currently amended) A method of precompiling a Java file which is executed on
a Java platform in a device, the Java application causing the device to perform a desired function,
the method comprising;

converting a Java class file or a Java source file into a machine instruction including an
operand in which symbolic reference information is inserted in place of an address.

11. (original) The method of claim 10, wherein the Java class file comprises a standard
class file included in a standard Java class library.

12. (currently amended) An execution method in a Java Virtual Machine (JVM) in which a Java application is executed on a Java platform in a device, the Java application causing the device to perform a desired function, the execution method comprising:

determining whether method information of a method to be executed includes an attribute of a code formed of a machine instruction having [[a]] an operand in which symbolic reference information is inserted in place of an address; and

if the method information of the method to be executed includes the attribute of the code formed of the machine instruction, linking the symbolic reference information with an address and executing the machine instruction.

13. (original) The method of claim 12, wherein, if the method information of the method to be executed does not include the attribute of the code formed of the machine instruction, the execution method further comprises one of Just-In-Time (JIT) compiling and interpreting the method.

14. (new): The Java execution device of claim 1, wherein an Ahead-of-Time (AOT) compilation is performed on the class file prior to execution of the class file by the Java Virtual Machine (JVM).

15. (new): The Java execution device of claim 1, wherein a machine instruction of the machine code includes an operand in which symbolic reference information is inserted in place of an address.

16. (new): The method of claim 7, wherein the precompiling the class file comprises inserting symbolic reference information in place of an address into an operand of the machine instruction.

17. (new): The Java execution device of claim 14, wherein the symbolic reference information is inserted during performance of the Ahead-of-Time (AOT) compilation.